

Plaice (*Pleuronectes platessa*) in divisions 7.h–k (Celtic Sea South, southwest of Ireland)

ICES advice on fishing opportunities

Please note: The present advice replaces the advice given in June 2018 for catches in 2020.

ICES advises that when the precautionary approach is applied, there should be zero catch in 2020 and 2021.

Stock development over time

Spawning–stock biomass (SSB) has been well below B_{lim} since 2002. Fishing mortality (F) is highly variable and has been above F_{lim} for the entire time-series. Recruitment (R) has decreased throughout the entire time-series.

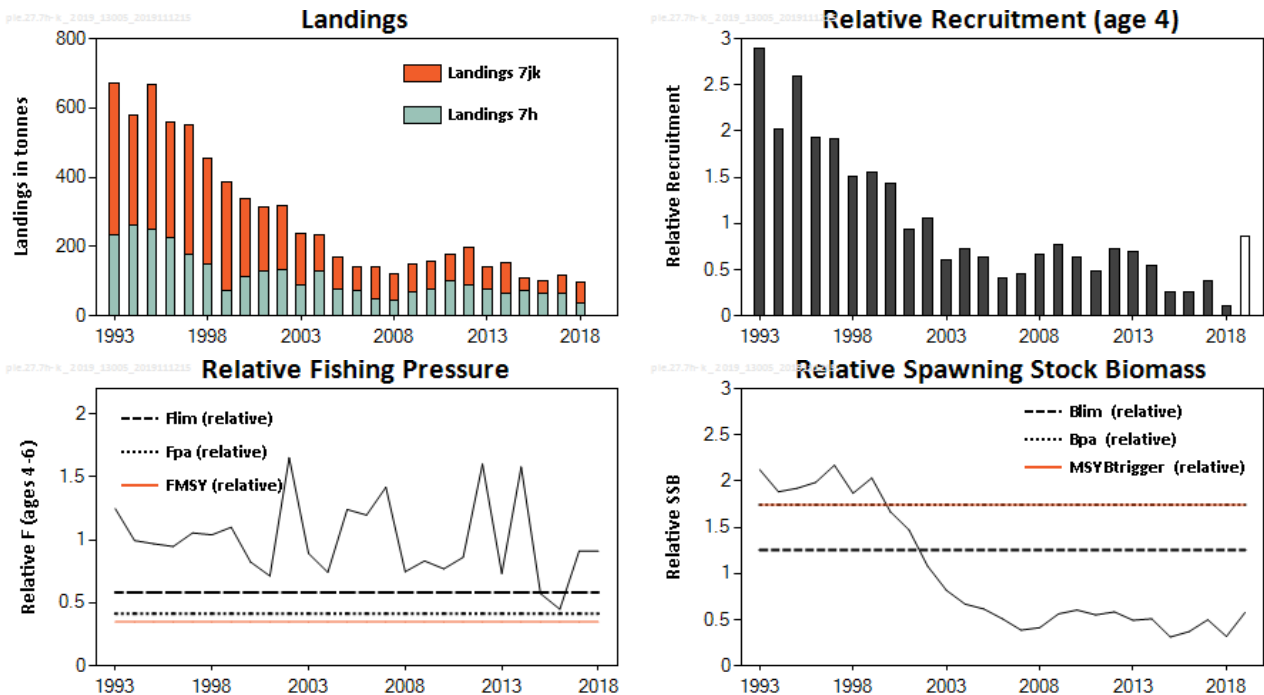


Figure 1* Plaice in divisions 7.h–k. Summary of the stock assessment. The landings are for the full stock area (divisions 7.h–k), but only landings from divisions 7.j and 7.k are used in the assessment. Recruitment, F, and SSB values are relative to the average of the time-series. Assumed recruitment (geometric mean for the entire series) is unshaded.

Stock and exploitation status

ICES assesses that fishing pressure on the stock is above $F_{MSY\ proxy}$, F_{pa} , and F_{lim} , and the spawning–stock size is below $MSY\ B_{trigger\ proxy}$, B_{pa} , and B_{lim} .

Table 1 Plaice in divisions 7.h–k. State of the stock and fishery relative to reference points.

		Fishing pressure			Stock size		
		2016	2017	2018	2017	2018	2019
Maximum sustainable yield	F_{MSY}	✘	✘	✘	MSY	✘	✘
Precautionary approach	F_{pa}, F_{lim}	○	✘	✘	B_{pa}, B_{lim}	✘	✘
Management plan	F_{MGT}	–	–	–	B_{MGT}	–	–
							✘ Below trigger
							✘ Reduced reproductive capacity

* Version 2: Label in landings figure corrected.

Catch scenarios

The ICES framework for category 3 stocks was applied (ICES, 2012). An assessment model for the divisions 7.j–k is used as the index of stock development in divisions 7.h–k. Given that SSB is estimated to be well below B_{lim} and is likely to remain so in 2020–2022, the advice is for zero catch for 2020 and 2021.

Basis of the advice

Table 2 Plaice in divisions 7.h–k. The basis of the advice.

Advice basis	Precautionary approach
Management plan	The EU multiannual plan (MAP) for stocks in the Western Waters and adjacent waters (EU, 2019) applies to bycatches of this stock.

Quality of the assessment

No landings-at-age data are available for the Division 7.h component. Discards are significant, but not fully quantified. The assessment is carried out on the landings from divisions 7.j and 7.k only, but is assumed to be representative of Division 7.h as well. Therefore, the advice is based on an assessment accepted for trends used as an indicator of stock size.

The apparent reduction in SSB since the mid-1990s is mainly driven by a reduction in abundance of young fish in recent years and high fishing mortality. However, it is unclear whether this lack of young fish in the landings is due to increased discarding or poor recruitment.

The assumption of an average recruitment (GM 1993–2017) for 2019 has no impact on the advice for 2020 and 2021.

Issues relevant for the advice

Advice for 2020 was previously given for this stock in 2018 (ICES, 2018a), but ICES has been requested to provide updated advice.

There is no quantitative mixed-fishery analysis that includes plaice in this area. Plaice in divisions 7.h–k is primarily a bycatch of the targeted sole fishery, so changes in effort in this fishery will impact fishing mortality on plaice.

Reference points

Table 3 Plaice in divisions 7.h–k. Reference points, relative values, and their technical basis.

Framework	Reference point	Relative value*	Technical basis	Source
MSY approach	MSY $B_{trigger\ proxy}$	1.74	B_{pa}	ICES (2017, 2019)
	$F_{MSY\ proxy}$	0.35	Median point estimates of EqSim with a segmented regression stock–recruitment relationship	ICES (2017, 2019)
Precautionary approach	B_{lim}	1.25	Break point in a segmented regression stock–recruitment relationship	ICES (2017, 2019)
	B_{pa}	1.74	$B_{lim} \times \exp(1.645 \times \sigma)$; $\sigma = 0.20$	ICES (2017, 2019)
	F_{lim}	0.58	F with 50% probability of SSB < B_{lim}	ICES (2017, 2019)
	F_{pa}	0.41	$F_{lim} \times \exp(-1.645 \times \sigma)$; $\sigma = 0.20$	ICES (2017, 2019)
Management plan	SSB _{mgt}	Not applicable		
	F_{mgt}	Not applicable		

* All values are relative to the average of the time-series in the stock assessment (see Table 8).

Basis of the assessment

Table 4 Plaice in divisions 7.h–k. Basis of the assessment and advice.

ICES stock data category	3 (ICES, 2018b).
Assessment type	Age-based analytical assessment (XSA) indicative of stock trends (ICES, 2019).
Input data	Commercial landings (international landings from divisions 7.j–k, Irish age compositions from landings sampling in Division 7.j); commercial tuning index (IRL-VMS-OTB); maturity and natural mortality data from divisions 7.f–g are applied.
Discards and bycatch	Discards are not quantified and not included in the assessment.
Indicators	None.
Other information	None.
Working group report	Working Group for the Celtic Seas Ecoregion (WGCSE)

Information from stakeholders

There is no additional available information.

History of the advice, catch, and management

Table 5 Plaice in divisions 7.h–k. ICES advice and official landings. All weights are in tonnes.

Year	ICES advice	Wanted catch corresp. to advice	Agreed TAC	Official landings	ICES landings
1993	-	-	-	672	655
1994	-	-	-	578	577
1995	-	-	-	667	542
1996	-	-	-	560	453
1997	-	-	-	551	645
1998	-	-	-	454	444
1999	-	-	-	385	406
2000	-	-	-	337	299
2001	-	-	1215	313	261
2002	-	-	1080	316	313
2003	Reduce TAC to recent average (1998–2000)	450	582	237	217
2004	Reduce TAC to recent average (2000–2002)	320	466	232	221
2005	Reduce TAC to recent average (2001–2003)	271	466	170	164
2006	Reduce TAC to recent average (2002–2004)	245	396	143	147
2007	Reduce TAC to recent average (2003–2005)	196	337	142	120
2008	Reduce TAC to recent average (2004–2006)	177	303	122	135
2009	Same advice as last year	177	256	148	148
2010	Reduce TAC	-	218	156	155
2011	See scenarios	-	185	179	178
2012	Reduce catches	-	176	199	196
2013	Decrease catches by 36% (20% decrease, followed by 20% PA reduction)	< 100	141	141	182
2014	Decrease landings by 4% (20% increase, followed by 20% PA reduction)	< 135	135	148	169
2015	The same landings advice as for 2014	< 135	135	107	114
2016	Precautionary approach (same advised value as for 2015)	≤ 135	135	100	99

Year	ICES advice	Wanted catch corresp. to advice	Agreed TAC	Official landings	ICES landings
2017	Precautionary approach (36% reduction in advised landings)	≤ 86	128	116*	115
2018	Precautionary approach	0	128	95*	97
2019	Precautionary approach	0	109		
2020	Precautionary approach	0			
2021	Precautionary approach	0			

* Preliminary.

History of the catch and landings

Table 6 Plaice in divisions 7.h–k. Catch distribution by fleet in 2018 as estimated by ICES.

Catch	Landings			Discards
Unknown	Otter trawl 60%	Beam trawl 29%	Other gears 11%	Unknown
	97 tonnes			

Table 7 Plaice in divisions 7.h–k. History of commercial landings. All weights are in tonnes.

Year	Divisions 7.j–k					Division 7.h					7.j–k	7.h	Divisions 7.h–k	
	BEL	FRA	IRL	UK	OTH	BEL	FRA	IRL	UK	OTH	Total	Total	Official	ICES estimates
1993	0	8	383	46	0	0	56	0	179	0	437	235	672	655
1994	0	6	251	60	0	0	42	20	199	0	317	261	578	577
1995	0	12	317	90	0	0	48	4	196	0	419	248	667	542
1996	0	3	295	38	0	0	45	10	117	52	336	224	560	453
1997	0	6	337	32	0	0	63	7	106	0	375	176	551	645
1998	0	8	282	16	0	0	41	4	90	13	306	148	454	444
1999	42	0	296	15	0	3	0	3	67	1	311	74	385	406
2000	4	16	195	9	5	0	38	5	67	2	225	112	337	299
2001	0	16	157	6	3	27	34	3	67	0	182	131	313	261
2002	14	21	155	5	2	55	24	0	54	0	183	133	316	313
2003	4	7	125	9	6	16	25	2	47	0	147	90	237	217
2004	0	5	87	6	6	67	27	4	30	0	104	128	232	221
2005	0	4	88	2	0	32	16	2	26	0	94	76	170	164
2006	1	6	63	1	1	22	31	2	17	0	71	72	143	147
2007	2	9	72	2	11	7	21	0	18	2	94	48	142	120
2008	3	5	72	1	1	25	7	0	11	0	79	43	122	135
2009	4	7	71	2	0	1	37	0	30	0	80	68	148	148
2010	5	11	66	1	0	0	44	0	34	0	78	78	156	155
2011	6	11	67	2	0	4	47	6	42	0	80	99	179	178
2012	7	17	93	0	0	2	45	6	36	0	110	89	199	196
2013	0	14	51	0	0	0	35	1	40	0	65	76	141	182
2014	0	11	78	0	0	4	41	4	15	0	89	64	153	169
2015	0	10	24	0	0	5	50	2	17	0	34	74	108	114
2016	0	7	30	0	0	7	39	2	15	0	37	63	100	99
2017	0	12	39	1	0	11	41	3	9	0	52	64	116	115
2018*	1	5	30	0	0	16	30	2	0	11	59	36	95	97

* Preliminary.

Summary of the assessment

Table 8 Plaice in divisions 7.h–k. Assessment summary. Weights are in tonnes.

Year	Relative recruitment age 4	Relative SSB	Relative F ages 4–6	Landings divisions 7.j–k	Landings Division 7.h*
1993	2.9	2.1	1.25	437	235
1994	2.0	1.85	0.99	317	261
1995	2.6	1.89	0.97	419	248
1996	1.92	1.95	0.95	336	224
1997	1.90	2.1	1.05	375	176
1998	1.50	1.84	1.04	306	148
1999	1.55	2.0	1.10	311	74
2000	1.43	1.64	0.82	225	112
2001	0.93	1.45	0.71	182	131
2002	1.05	1.06	1.65	183	133
2003	0.60	0.80	0.89	147	90
2004	0.72	0.66	0.74	104	128
2005	0.63	0.61	1.24	94	76
2006	0.40	0.50	1.20	71	72
2007	0.46	0.38	1.42	94	48
2008	0.66	0.41	0.75	79	43
2009	0.77	0.55	0.83	80	68
2010	0.63	0.60	0.77	78	78
2011	0.48	0.54	0.86	80	99
2012	0.72	0.57	1.60	110	89
2013	0.70	0.49	0.73	65	76
2014	0.53	0.50	1.58	89	64
2015	0.25	0.31	0.57	34	74
2016	0.26	0.37	0.45	37	63
2017	0.37	0.49	0.91	52	64
2018	0.103	0.31	0.91	59	36
2019	0.86	0.58			

*Landings in Division 7.h are not used in the assessment.

Sources and references

EU. 2019. Regulation (EU) 2019/472 of the European Parliament and of the Council of 19 March 2019 establishing a multiannual plan for stocks fished in the Western Waters and adjacent waters, and for fisheries exploiting those stocks, amending Regulations (EU) 2016/1139 and (EU) 2018/973, and repealing Council Regulations (EC) No 811/2004, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007 and (EC) No 1300/2008. Official Journal of the European Union, L 83: 1–17. <http://data.europa.eu/eli/reg/2019/472/oj>.

ICES. 2012. ICES Implementation of Advice for Data-limited Stocks in 2012 in its 2012 Advice. ICES CM 2012/ACOM:68. 42 pp.

ICES. 2017. Report of the Working Group for the Celtic Seas Ecoregion (WGCSE), 9–18 May 2017, ICES Headquarters, Copenhagen, Denmark. ICES CM 2017/ACOM:13. 1464 pp.

ICES. 2018a. Plaice (*Pleuronectes platessa*) in divisions 7.h–k (Celtic Sea South, southwest of Ireland). In Report of the ICES Advisory Committee, 2018. ICES Advice 2018, ple.27.7h-k. 6 pp. <https://doi.org/10.17895/ices.pub.4491>.

ICES. 2018b. Advice basis. In Report of the ICES Advisory Committee, 2018. ICES Advice 2018, Book 1, Section 1.2. <https://doi.org/10.17895/ices.pub.4503>.

ICES. 2019. Report of the Working Group for the Celtic Seas Ecoregion. ICES Scientific Reports. 1:29. XXXX pp. <http://doi.org/10.17895/ices.pub.4982>.

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